

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A direct oxidation electrochemical fuel cell comprising a stack of electrode and membrane elements, said direct oxidation electrochemical fuel cell producing electrical current through the oxidation of a fuel containing ~~γ~~ said fuel including at least one of: a secondary alcohol comprising at least one of the group: 2-propanol ($\text{CH}_3\text{CHOHCH}_3$), propylene glycol ($\text{CH}_3\text{CHOHCH}_2\text{OH}$), glyceraldehyde; and at least one of the group: ~~($\text{CH}_2\text{OHCHOHCOH}$)~~ the a short chain alkanones such as: propanone (CH_3COCH_3), butanone ($\text{CH}_3\text{CH}_2\text{COCH}_3$), and pentanone ($\text{CH}_3\text{COCH}_2\text{CH}_2\text{CH}_3$, $\text{CH}_3\text{CH}_2\text{COCH}_2\text{CH}_3$) alkanone.

Claims 2 - 9 (cancelled)

Claim 10 (original): The electrochemical fuel cell according to claim 1, wherein the fuel cell is selected from a group of fuel cells consisting of a liquid electrolyte fuel cell, a solid membrane fuel cell, an alkaline fuel cell, a phosphoric acid fuel cell, a molten carbonate fuel cell, and a solid oxide fuel cell.

Claim 11 (original): The solid membrane fuel cell according to claim 10, wherein the membrane includes any cationic and anionic membrane.

Claim 12 (original): The solid membrane fuel cell according to claim 10, wherein the membrane includes a membrane element selected from a group consisting of: non-fluorinated, partially fluorinated, and perfluorinated membranes.

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Claim 13 (original): The solid membrane fuel cell according to claim 10, wherein the membrane is a proton exchange membrane.

Claim 14 (cancelled)

Claim 15 (new): A direct oxidation electrochemical fuel cell comprising a stack of electrode and membrane elements, said direct oxidation electrochemical fuel cell producing electrical current through the oxidation of a secondary alcohol comprising glyceraldehyde ($\text{CH}_2\text{OHCHOHCOH}$).

Claim 16 (new): The electrochemical fuel cell according to claim 15, wherein the fuel cell is selected from a group of fuel cells consisting of a liquid electrolyte fuel cell, a solid membrane fuel cell, an alkaline fuel cell, a phosphoric acid fuel cell, a molten carbonate fuel cell, and a solid oxide fuel cell.

Claim 17 (new): The solid membrane fuel cell according to claim 16, wherein the membrane includes any cationic and anionic membrane.

Claim 18 (new): The solid membrane fuel cell according to claim 15, wherein the membrane includes a membrane element selected from a group consisting of: non-fluorinated, partially fluorinated, and perfluorinated membranes.

Claim 19 (new): The solid membrane fuel cell according to claim 15, wherein the membrane is a proton exchange membrane.